

Materials kit list





Amplify.



THE LAWRENCE
HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

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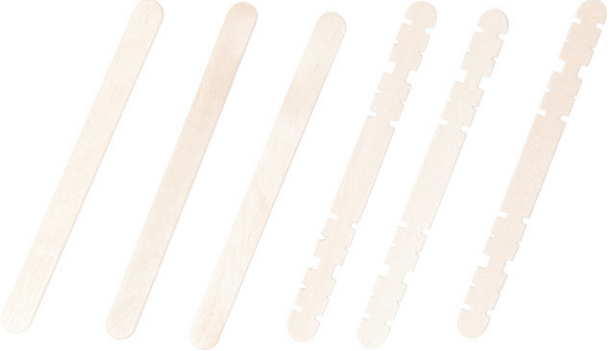
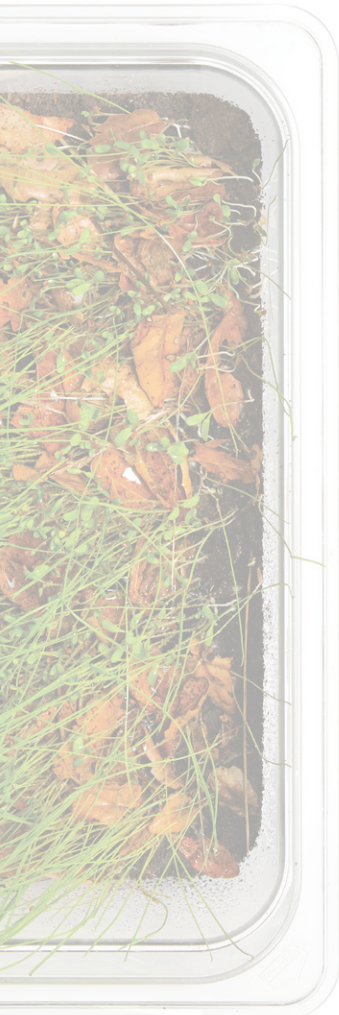
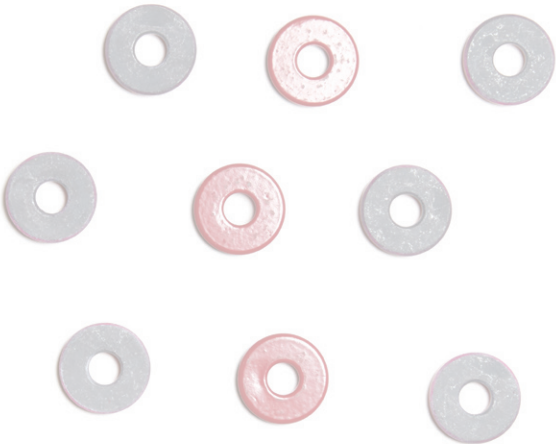
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The quantity of manipulative items provided in a kit may exceed the quantity required for certain activities.



Starter Kit



Hands-on materials

| Quantity | Description |
|----------|----------------------------|
| 12 | sticky notes, 3" x 3", pad |
| 24 | hand lenses, plastic |
| 10 | masking tape, rolls |
| 40 | goggles, safety |
| 20 | trays, plastic |
| 2 | dish tubs |

Needs of Plants and Animals



Materials in this unit are packaged in 3 boxes.

Hands-on materials

| Quantity | Description |
|----------|--------------------------------------|
| 216 | sticky notes, electric blue, 3" x 3" |
| 72 | sticky notes, black, 3" x 3" |
| 4 | trays, potting, plastic |
| 250 | cups, plastic, 9 oz |
| 50 | cups, plastic, 2 oz |
| 216 | elf sunflower seeds |
| 1 | grow light bulb |
| 4 | spray bottles |
| 432 | radish seeds |
| 1 | light timer |
| 1 | clamp lamp |

Classroom materials

| Quantity | Description |
|----------|--|
| 1 | <i>Investigating Monarchs</i> , Big Book (24 pages/book) |
| 1 | <i>A Plant in the Desert</i> , Big Book (20 pages/book) |
| 1 | <i>Handbook of Plants</i> , Big Book (36 pages/book) |
| 1 | <i>Above and Below</i> , Big Book (20 pages/book) |
| 1 | <i>Science Walk</i> , Big Book (20 pages/book) |
| 2 | Habitat Pictures: Forest and Field of Weeds |
| 3 sets | Animals and their Foods cards (9 cards/set) |
| 18 sets | Living Things Student cards (11 cards/set) |
| 18 sets | Human Needs Student cards (12 cards/set) |
| 6 | Explanation Language Frame cards: set 1 |
| 5 | Explanation Language Frame cards: set 2 |
| 2 | Explanation Language Frame cards: set 3 |
| 2 | Explanation Language Frame cards: set 4 |
| 4 | Explanation Language Frame cards: set 5 |



Student materials

| | |
|---------|---|
| 18 sets | Water in Habitat cards (4 cards/set) |
| 19 sets | Mariposa Grove cards (2 cards/set) |
| 16 | Living/Nonliving Things cards |
| 9 | Animals Eating Station cards |
| 6 | Monarch Habitats chart cards |
| 8 | Animal Habitat Table cards |
| 17 | Food Sorting cards |
| 12 | Human Needs cards |
| 2 | Section headers: Key Concepts, Vocabulary |
| 4 | Chapter Questions cards |
| 1 | Unit Question card |
| 11 | Vocabulary cards |

| Quantity | Description |
|----------|--|
| 1 | <i>Needs of Plants and Animals: Milkweed and Monarchs Investigation Notebook</i> (24 pages/book) |
| 18 | <i>Investigating Monarchs</i> (24 pages/book) |
| 18 | <i>A Plant in the Desert</i> (20 pages/book) |
| 18 | <i>Handbook of Plants</i> (36 pages/book) |
| 18 | <i>Above and Below</i> (20 pages/book) |
| 18 | <i>Science Walk</i> (20 pages/book) |

Pushes and Pulls



Materials in this unit are packaged in **3** boxes.

Hands-on materials

| Quantity | Description |
|----------|---|
| 73 | cardboard boxes, 11" x 17" x 2", with slots |
| 200 | wooden sticks (tongue depressors) |
| 1 | cardboard box, 12" x 24" x 2" |
| 93 | baggies, plastic with zip |
| 160 | rubber bands (medium) |
| 81 | rubber bands (large) |
| 24 | rubber bands (small) |
| 73 | balls, table-tennis |
| 73 | binder clips, large |
| 2 | masking tape, rolls |
| 1 | peg board, 1' x 2' |
| 18 | nuts, large, metal |
| 16 | dowels, 2" long |
| 1 | ball, foam, 6" |
| 18 | marbles, flat |
| 19 | tennis balls |
| 73 | shoelaces |

Classroom materials

| Quantity | Description |
|----------|---|
| 1 | <i>Room 4 Solves a Problem</i> , Big Book (28 pages/book) |
| 1 | <i>A Busy Day in Pushville</i> , Big Book (20 pages/book) |
| 1 | <i>Talking About Forces</i> , Big Book (20 pages/book) |
| 1 | <i>Building with Forces</i> , Big Book (20 pages/book) |
| 1 | <i>Forces in Ball Games</i> , Big Book (52 pages/book) |
| 9 | Pinball Machine Design Goals chart: Diagrams 1-9 |
| 5 | What We Know About Forces chart: Icons 1-6 |
| 7 | Explanation Language Frames cards: set 1 |
| 4 | Explanation Language Frames cards: set 2 |
| 8 | Explanation Language Frames cards: set 3 |
| 2 | Explanation Language Frames cards: set 4 |
| 4 | Explanation Language Frames cards: set 5 |



Student materials

| | |
|---------|---|
| 18 sets | Forces cards set: Headers (2 cards/set) |
| 18 sets | Forces cards: small (8 cards/set) |
| 73 | Box Model mat 1: Long/Short |
| 73 | Box Model mat 2: left/right |
| 73 | Box Model mat 3: targets |
| 8 | Forces cards: large |
| 2 | Section headers: Key Concepts, Vocabulary |
| 6 | Chapter Questions cards |
| 1 | Unit Question card |
| 9 | Vocabulary cards |

| Quantity | Description |
|----------|---|
| 1 | <i>Pushes and Pulls: Designing a Pinball Machine Investigation Notebook</i> (28 pages/book) |
| 18 | <i>A Busy Day in Pushville</i> (20 pages/book) |
| 18 | <i>Room 4 Solves a Problem</i> (28 pages/book) |
| 18 | <i>Talking About Forces</i> (20 pages/book) |
| 18 | <i>Forces in Ball Games</i> (52 pages/book) |
| 18 | <i>Building with Forces</i> (20 pages/book) |

Sunlight and Weather



Materials in this unit are packaged in **2** boxes.

Hands-on materials

| Quantity | Description |
|----------|---------------------------------|
| 8 | vials with lids, plastic, 18 ml |
| 36 | rubber sheets, black, 3" x 6" |
| 36 | rubber sheets, white, 3" x 6" |
| 18 | thermometers, liquid crystal |
| 2 | clay, soft plasticine, 16 oz |
| 9 | light bulbs, 60 watt |
| 1 | glue, super, bottles |
| 130 | cups, plastic, 9 oz |
| 2 | gravel, cups |
| 4 | caps, bottle |
| 9 | clamp lamps |
| 37 | cups, paper |

Classroom materials

| Quantity | Description |
|----------|--|
| 1 | <i>Tornado! Predicting Severe Weather</i> , Big Book (24 pages/book) |
| 1 | <i>What Is the Weather Like Today?</i> , Big Book (28 pages/book) |
| 1 | <i>Getting Warm in the Sunlight</i> , Big Book (20 pages/book) |
| 1 | <i>Cool People in Hot Places</i> , Big Book (24 pages/book) |
| 1 | <i>Handbook of Models</i> , Big Book (40 pages/book) |
| 38 | Playground Weather calendars and graphs Illustration cards |
| 2 | Nighttime and Daytime Illustration cards |
| 4 | Explanation Language Frame cards: set 1 |
| 4 | Explanation Language Frame cards: set 2 |
| 4 | Explanation Language Frame cards: set 3 |
| 2 | Playground and Temperature Data images |
| 2 | Think and Walk Severe Weather cards |



Student materials

| Quantity | Description |
|----------|---|
| 2 | Think and Walk Temperature cards |
| 3 | Warming Over Time Graph labels |
| 6 | Colored Surfaces Graph labels |
| 5 | Think and Walk Weather cards |
| 18 | thermometer color strips |
| 5 | Types of Weather icons |
| 2 | Warming Graph labels |
| 1 | Sunlight Game card |
| 3 | Time of Day cards |
| 2 | Section headers: Key Concepts, Vocabulary |
| 5 | Chapter Questions cards |
| 1 | Unit Question card |
| 10 | Vocabulary cards |

| Quantity | Description |
|----------|---|
| 1 | <i>Sunlight and Weather: Solving Playground Problems Investigation Notebook</i> (28 pages/book) |
| 18 | <i>Tornado! Predicting Severe Weather</i> (24 pages/book) |
| 18 | <i>What Is the Weather Like Today?</i> (28 pages/book) |
| 18 | <i>Getting Warm in the Sunlight</i> (20 pages/book) |
| 18 | <i>Cool People in Hot Places</i> (24 pages/book) |
| 18 | <i>Handbook of Models</i> (40 pages/book) |

Animal and Plant Defenses



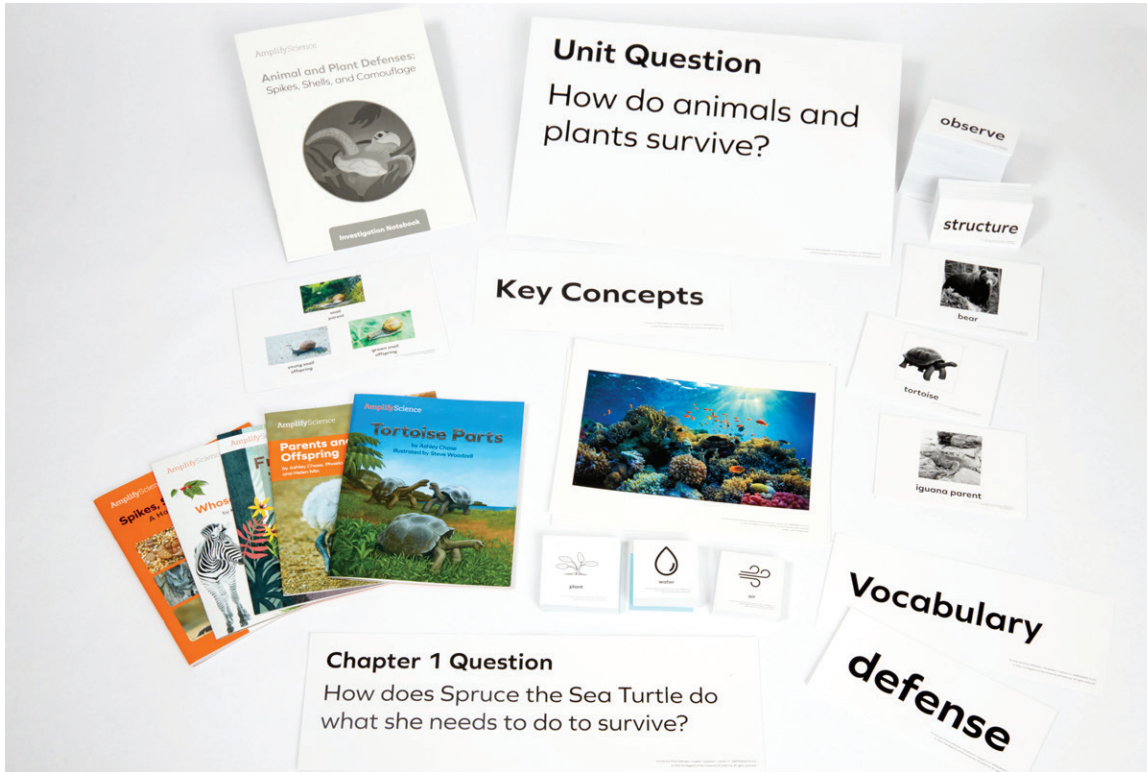
Materials in this unit are packaged in **1** box.

Hands-on materials

| Quantity | Description |
|----------|---|
| 72 | game tokens, plastic, 1¼" diameter disc |
| 40 | tissue paper, sheets, various colors |
| 37 | cups, plastic, 16 oz |
| 36 | rings, binder, metal |
| 150 | cups, plastic, 2 oz |
| 19 | hair combs, plastic |
| 73 | cups, paper, 7 oz. |
| 800 | toothpicks, wooden |
| 144 | pencil-top erasers |
| 2 | clay, 16 oz |

Classroom materials

| Quantity | Description |
|----------|--|
| 1 | <i>Spikes, Spines, and Shells: A Handbook of Defenses</i> , Big Book (52 pages/book) |
| 1 | <i>Parents and Offspring</i> , Big Book (28 pages/book) |
| 1 | <i>Whose Lunch Is This?</i> , Big Book (24 pages/book) |
| 1 | <i>Tortoise Parts</i> , Big Book (24 pages/book) |
| 1 | <i>Frog Models</i> , Big Book (24 pages/book) |
| 1 set | Structure-Function Language Frames cards: set 1 (11 cards/set) |
| 1 set | Structure-Function Language Frames cards: set 2 (6 cards/set) |
| 1 set | Explanation Language Frames cards (4 cards/set) |
| 18 sets | Parent and Offspring card set (5 cards/set) |



| | |
|---------|---|
| 9 set | Survival Game Need cards (12 cards/set) |
| 9 set | Survival Game Role cards (4 cards/set) |
| 1 set | Background Scene cards (9 cards/set) |
| 36 sets | Word Ring cards (9 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards |
| 1 set | Unit Question |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Animal and Plant Defenses: Spikes, Shells, and Camouflage Investigation Notebook</i> (24 pages/book) |
| 18 | <i>Spikes, Spines, and Shells: A Handbook of Defenses</i> (52 pages/book) |
| 18 | <i>Parents and Offspring</i> (28 pages/book) |
| 18 | <i>Whose Lunch Is This?</i> (24 pages/book) |
| 18 | <i>Tortoise Parts</i> (24 pages/book) |
| 18 | <i>Frog Models</i> (24 pages/book) |

Light and Sound

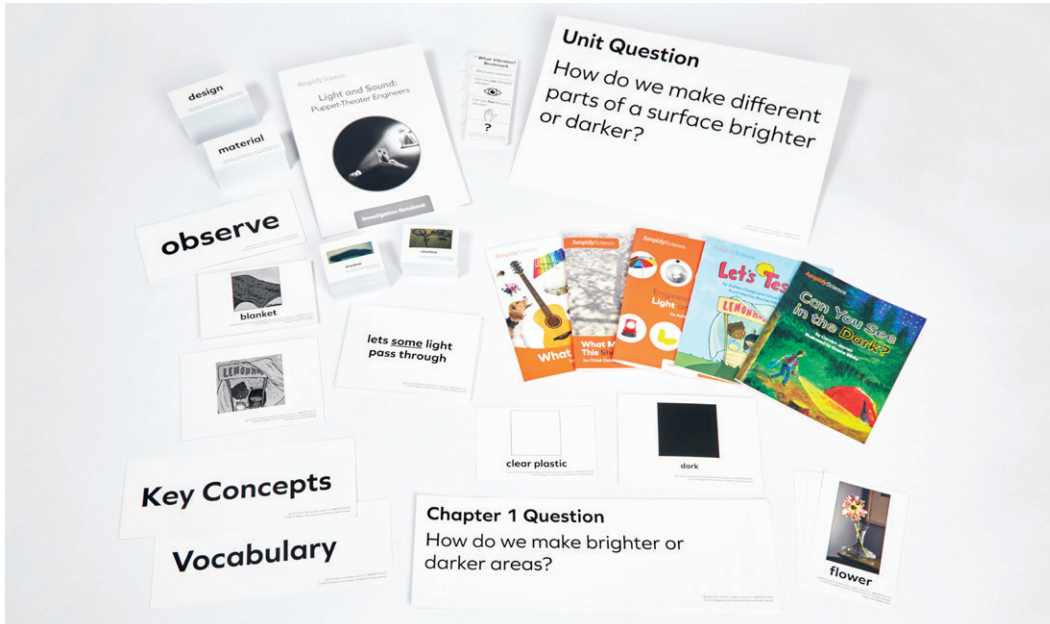


Materials in this unit are packaged in 2 boxes.

Hands-on materials

| Quantity | Description |
|----------|--|
| 4 | lighting filters, sheets (representing tinted plastic) |
| 22 | cardstocks, blue, sheets (representing cardboard) |
| 5 | sticks, wooden (tongue depressors) |
| 19 | cardstocks, white, sheets |
| 1 | rubber bands, super size |
| 72 | envelopes, large manila |
| 37 | clips, binder, medium |
| 19 | clips, binder, large |
| 36 | rings, binder, metal |
| 20 | rubber bands, medium |
| 19 | cups, plastic, 9 oz |
| 5 | containers, plastic |
| 8 | cups, plastic, 2 oz |

| | |
|-----|--------------------|
| 19 | flashlights, small |
| 2 | flashlight, large |
| 147 | envelopes, small |
| 50 | acetate, sheets |
| 73 | crayons, silver |
| 1 | wax paper, roll |
| 73 | crayons, black |
| 24 | batteries, AA |
| 73 | crayons, gray |
| 22 | foam, sheets |
| 1 | foil, roll |
| 1 | string, 9 feet |



Classroom materials

| Quantity | Description |
|----------|--|
| 1 | Engineering with Light and Sound, Big Book (44 pages/book) |
| 1 | Can You See in the Dark?, Big Book (28 pages/book) |
| 1 | What Made This Shadow?, Big Book (28 pages/book) |
| 1 | What Vibrates?, Big Book (28 pages/book) |
| 1 | Let's Test!, Big Book (20 pages/book) |
| 1 | Explanation Language Frames cards: set 1 (7 cards/set) |
| 1 | Explanation Language Frames cards: set 2 (3 cards/set) |
| 1 | Explanation Language Frames cards: set 3 (3 cards/set) |
| 1 | Explanation Language Frames cards: set 4 (4 cards/set) |
| 1 | Explanation Language Frames cards: set 5 (3 cards/set) |
| 1 set | Results: Testing materials cards (8 cards/set) |
| 1 set | Results: Let's Test! cards (6 cards/set) |
| 1 set | Materials chart cards (15 cards/set) |
| 18 sets | What Vibrates? bookmark (1 card/set) |
| 18 sets | Shadow cards: small (12 cards/set) |

| | |
|---------|---|
| 1 set | Shadow cards: large (3 cards/set) |
| 18 sets | Let's Test! Bookmark (1 card/set) |
| 36 sets | Word Ring cards (8 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (8 cards/set) |
| 1 set | Unit Question (1 card/set) |

Student materials

| Quantity | Description |
|----------|--|
| 1 | Light and Sound: Puppet-Theater Engineers Investigation Notebook (36 pages/book) |
| 18 | Engineering with Light and Sound (44 pages/book) |
| 18 | Can You See in the Dark? (28 pages/book) |
| 18 | What Made This Shadow? (28 pages/book) |
| 18 | What Vibrates? (28 pages/book) |
| 18 | Let's Test! (20 pages/book) |

Spinning Earth

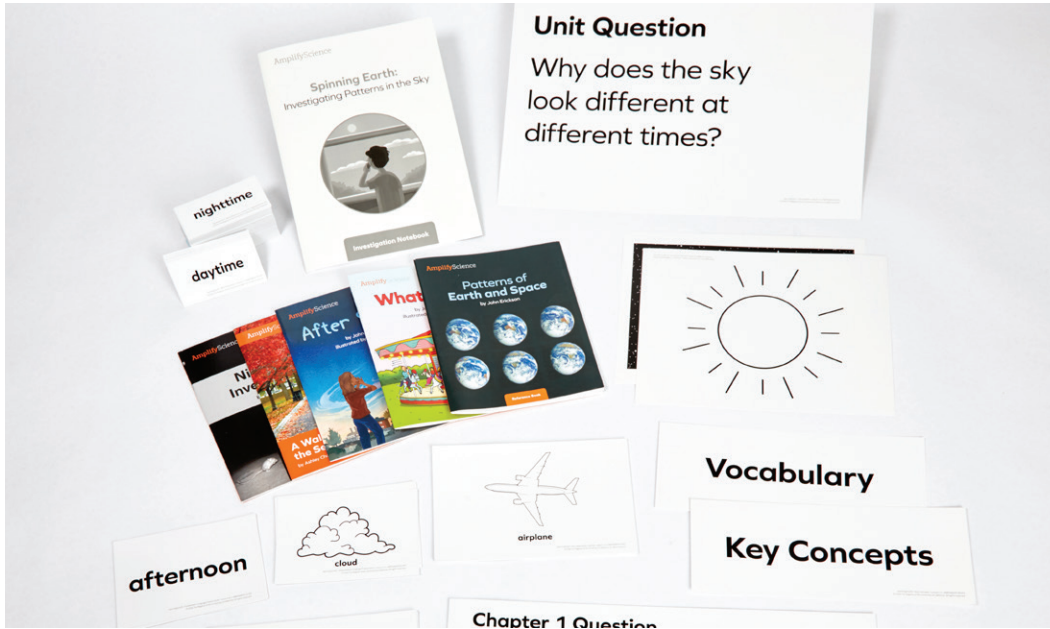


Materials in this unit are packaged in 2 boxes.

Hands-on materials

| Quantity | Description |
|----------|--|
| 50 | stickers, round, removable, yellow, 3/4 inch |
| 50 | stickers, round, removable, purple, 3/4 inch |
| 50 | stickers, round, removable, orange, 3/4 inch |
| 50 | stickers, round, removable, green, 3/4 inch |
| 50 | stickers, round, removable, pink, 3/4 inch |
| 50 | stickers, round, removable, red, 3/4 inch |
| 280 | stickers, round, light blue, 1/2 inch |
| 2 | paper, light blue, sheet (36" x 60") |
| 75 | stickers, round, yellow, 1/2 inch |
| 280 | stickers, round, black, 1/2 inch |

| | |
|----|---------------------------------|
| 2 | paper, black, sheet (36" x 24") |
| 12 | baking cup, paper, white |
| 36 | rings, binder, metal |
| 19 | globes, inflatable |
| 1 | stress ball, globe |
| 2 | magnets, ring |
| 1 | pump, hand |



Classroom materials

| Quantity | Description |
|----------|---|
| 1 | <i>Patterns of Earth and Space</i> (40 pages/book) |
| 1 | <i>A Walk Through the Seasons</i> (28 pages/book) |
| 1 | <i>Nighttime Investigation</i> (24 pages/book) |
| 1 | <i>After Sunset</i> (24 pages/book) |
| 1 | <i>What Spins?</i> (28 pages/book) |
| 1 set | Interpretation Language Frame cards: Lesson 1.4 (8 cards/set) |
| 1 set | Explanation Language Frame cards: Lesson 4.3 (6 cards/set) |
| 1 set | Sky Observation cards (large) (10 cards/set) |
| 1 set | Sun and Stars cards (2 cards/set) |
| 36 sets | Word Ring cards (10 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (5 cards/set) |
| 1 set | Vocabulary cards (10 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Spinning Earth: Investigating Patterns in the Sky Investigation Notebook</i> (32 Pages / Book) |
| 18 | <i>Patterns of Earth and Space</i> (40 pages/book) |
| 18 | <i>A Walk Through the Seasons</i> (28 pages/book) |
| 18 | <i>Nighttime Investigation</i> (24 pages/book) |
| 18 | <i>After Sunset</i> (24 pages/book) |
| 18 | <i>What Spins?</i> (28 pages/book) |

Plant and Animal Relationships



Materials in this unit are packaged in 2 boxes.

Hands-on materials

| Quantity | Description |
|----------|---------------------------|
| 25 | baggies, plastic with zip |
| 36 | soil, nutrient rich, cups |
| 18 | probability cubes (dice) |
| 6 | cups, plastic, 16 oz |
| 60 | seeds, elf sunflower |
| 18 | cups, plastic, 3 oz |
| 9 | plastic containers |
| 24 | play clay, purple |
| 36 | seeds, sweet corn |
| 16 | play clay, green |
| 16 | play clay, blue |
| 12 | play clay, pink |
| 100 | seeds, marigold |
| 100 | seeds, alfalfa |

| | |
|-----|---------------|
| 80 | beans, kidney |
| 100 | seeds, radish |
| 9 | tape measures |
| 1 | string, ball |
| 72 | cotton balls |
| 300 | beans, mung |
| 100 | seeds, beet |
| 36 | beans, lima |
| 1 | flashlight |
| 1 | fan, small |
| 6 | spoons |
| 25 | acorns |
| 5 | tongs |



Classroom materials

| Quantity | Description |
|----------|--|
| 18 sets | Bengal Tiger Reserve Sample Study site map (2015) (18 cards/set) |
| 1 set | Concept Mapping cards: set 1 (large) (5 cards/set) |
| 1 set | Concept Mapping cards: set 2 (large) (4 cards/set) |
| 1 set | Concept Mapping cards: set 3 (large) (4 cards/set) |
| 9 sets | Plant Parts cards (8 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards / set) |
| 1 set | Chapter Questions |
| 1 set | Vocabulary cards |
| 1 | Unit Question card |
| 1 set | Key Concepts |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Plant and Animal Relationships: Investigating Systems in a Bengali Forest Investigation Notebook</i> (84 pages/book) |
| 18 | <i>Handbook of Habitats</i> (52 pages/book) |
| 18 | <i>A Plant Is a System</i> (20 pages/book) |
| 18 | <i>Investigating Seeds</i> (28 pages/book) |
| 18 | <i>My Nature Notebook</i> (20 pages/book) |
| 18 | <i>Habitat Scientist</i> (24 pages/book) |

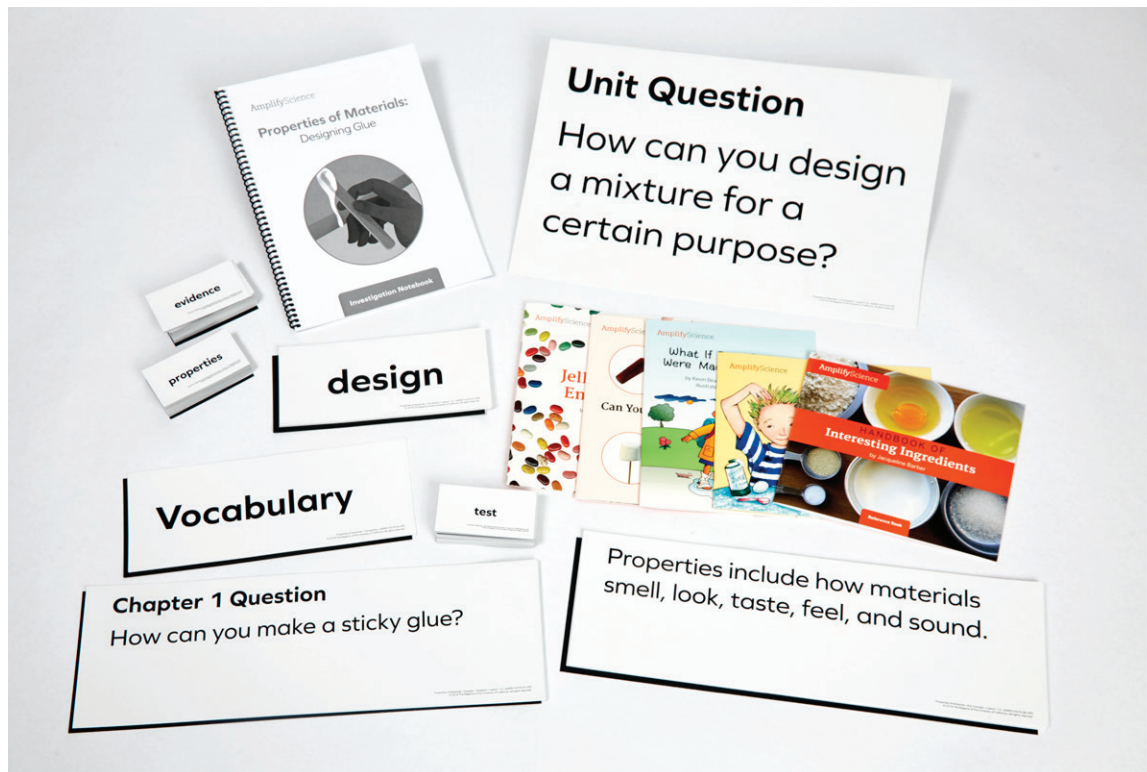
Properties of Materials



Materials in this unit are packaged in 3 boxes.

Hands-on materials

| Quantity | Description |
|----------|--|
| 18 | labels, pre-printed, cornstarch + water (not heated) |
| 18 | labels, pre-printed, cornstarch + water (heated) |
| 18 | labels, pre-printed, gelatin + water |
| 18 | labels, pre-printed, flour + water |
| 18 | labels, pre-printed, baking soda |
| 18 | labels, pre-printed, cornstarch |
| 18 | labels, pre-printed, corn syrup |
| 332 | index cards, unlined, 4" x 6" |
| 550 | sticks, craft, wooden, small |
| 550 | sticks, craft, wooden, large |
| 18 | labels, pre-printed, Glue A |
| 18 | labels, pre-printed, Glue B |
| 1 | cinnamon powder, container |
| 18 | labels, pre-printed, flour |
| 60 | baggies, plastic with zip |
| 18 | labels, pre-printed, salt |
| 8 | baking soda, containers |
| 8 | cornstarch, containers |
| 6 | gelatin powder, boxes |
| 1 | beans, kidney, pound |
| 8 | corn syrup, bottles |
| 2 | salt, kosher, boxes |
| 200 | cups, plastic, 9 oz |
| 344 | cups, paper, 3 oz |
| 46 | spoons, plastic |
| 225 | washers, metal |
| 200 | lids, plastic |



Classroom materials

| Quantity | Description |
|----------|---|
| 18 sets | Word Relationships cards: set 1 (2 cards/set) |
| 18 sets | Word Relationships cards: set 2 (3 cards/set) |
| 18 sets | Word Relationships cards: set 3 (3 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (13 cards/set) |
| 1 set | Key Concepts (13 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Properties of Materials: Designing Glue</i> Investigation Notebook (88 pages/book) |
| 18 | <i>What If Rain Boots Were Made of Paper?</i> (20 pages/book) |
| 18 | <i>Handbook of Interesting Ingredients</i> (40 pages/book) |
| 18 | <i>Can You Change It Back?</i> (28 pages/book) |
| 18 | <i>Jelly Bean Engineer</i> (40 pages/book) |
| 18 | <i>Jess Makes Hair Gel</i> (24 pages/book) |

Changing Landforms

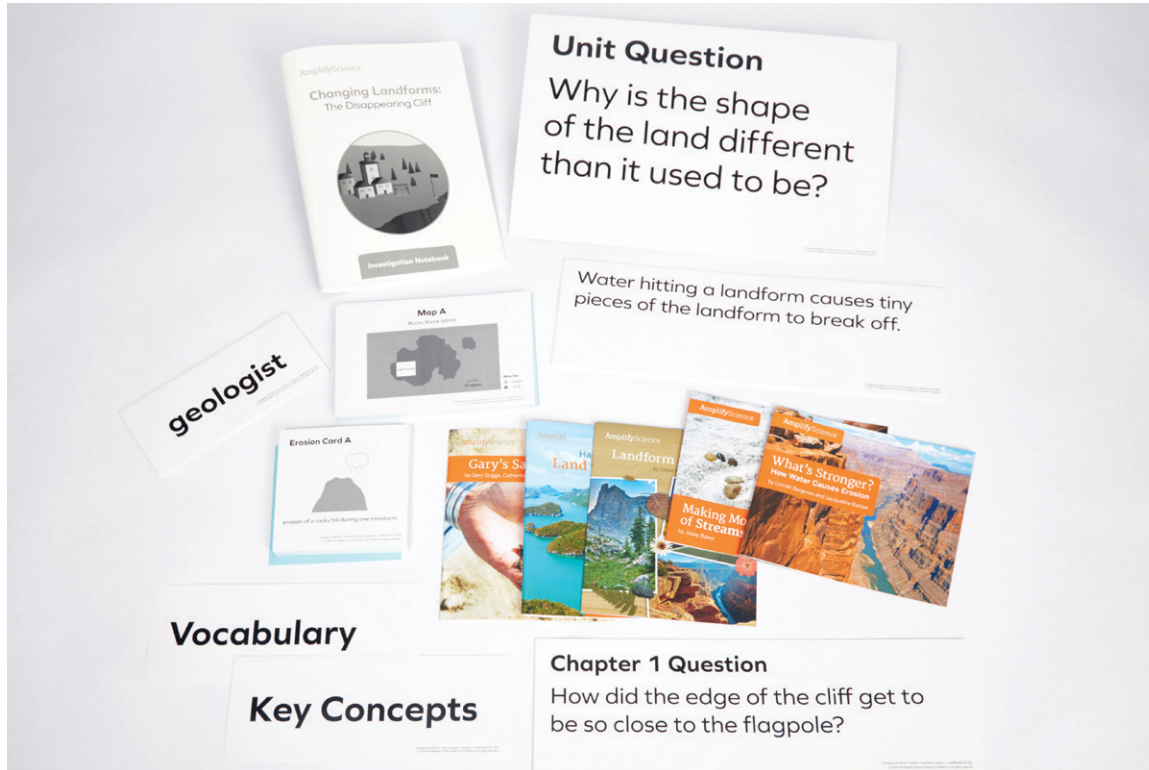


Materials in this unit are packaged in 2 boxes.

Hands-on materials

| Quantity | Description |
|----------|---|
| 2 | sand, rounded large (pebbles), multicolor, cups |
| 18 | containers, plastic, clear, with lids |
| 3 | sand, fine playground, tan, cups |
| 1 | lid, for clear plastic jar |
| 72 | baggies, plastic with zip |
| 2 | sand, jagged, black, cups |
| 2 | sand, kinetic, tan, boxes |
| 2 | sand, jagged, tan, cups |

| | |
|-----|----------------------|
| 4 | chalk, white, blocks |
| 74 | index cards, 4" x 6" |
| 1 | jar, clear plastic |
| 500 | pom-poms, black |
| 9 | bottles, spray |
| 18 | rocks, pumice |
| 16 | hard candies |



Classroom materials

| Quantity | Description |
|----------|---|
| 18 sets | Island Maps cards (4 cards/set) |
| 12 sets | Erosion cards (8 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (11 cards/set) |
| 1 set | Key Concepts (10 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|--|
| 1 | <i>Changing Landforms: The Disappearing Cliff Investigation Notebook</i> (92 pages/book) |
| 18 | <i>What's Stronger? How Water Causes Erosion</i> (24 pages/book) |
| 18 | <i>Handbook of Land and Water</i> (52 pages/book) |
| 18 | <i>Making Models of Streams</i> (20 pages/book) |
| 18 | <i>Gary's Sand Journal</i> (28 pages/book) |
| 18 | <i>Landform Postcards</i> (28 pages/book) |

Balancing Forces



Materials in this unit are packaged in **1** box.

Hands-on materials

| Quantity | Description |
|----------|---|
| 18 | cardboard tubes (toilet-paper rolls), 4" long, halved |
| 20 | clothespins, wood, with wire hinges, |
| 38 | magnets, ring, north pole painted red |
| 20 | bags, plastic, quart, self-sealing |
| 10 | fasteners (brads), brass plated |
| 10 | fasteners (brads), solid brass |
| 38 | hooks, with pointed screw tips |
| 18 | cardboard, pieces, 3.5" x 2" |
| 18 | cardboard, pieces, 7" x 3.5" |
| 1 | string, cotton, white, ball |
| 1 | wire, magnet, copper, roll |
| 18 | cardboard, pieces, 2" x 2" |
| 50 | baggies, plastic with zip |
| 1 | sandpaper, small piece |
| 19 | balloons, medium size |
| 18 | balls, rubber, small |
| 18 | cups, plastic, 16 oz |
| 108 | index cards, 4" x 6" |
| 15 | wooden craft sticks |
| 1 | aluminum foil, roll |
| 19 | dominoes, plastic |
| 10 | steel wool pads |
| 1 | battery holder |
| 38 | blocks, wooden |
| 10 | washers, metal |
| 10 | spoons, steel |
| 18 | magnets, ball |
| 2 | batteries, D |
| 200 | paper clips |
| 1 | bolt, iron |
| 20 | twist ties |



Classroom materials

| Quantity | Description |
|----------|---|
| 18 sets | Word Relationships cards: set 1 (8 cards/set) |
| 18 sets | Word Relationships cards: set 2 (3 cards/set) |
| 18 sets | Word Relationships cards: set 3 (3 cards/set) |
| 18 sets | Word Relationships cards: set 4 (3 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (5 cards/set) |
| 1 set | Vocabulary cards (12 cards/set) |
| 1 set | Key Concepts (10 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Balancing Forces: Investigating Floating Trains</i> Investigation Notebook (88 pages/book) |
| 18 | <i>What My Sister Taught Me About Magnets</i> (28 pages/book) |
| 18 | <i>Explaining a Bridge</i> (20 pages/book) |
| 18 | <i>Handbook of Forces</i> (36 pages/book) |
| 18 | <i>Forces All Around</i> (24 pages/book) |
| 18 | <i>Hoverboard</i> (20 pages/book) |

Inheritance and Traits



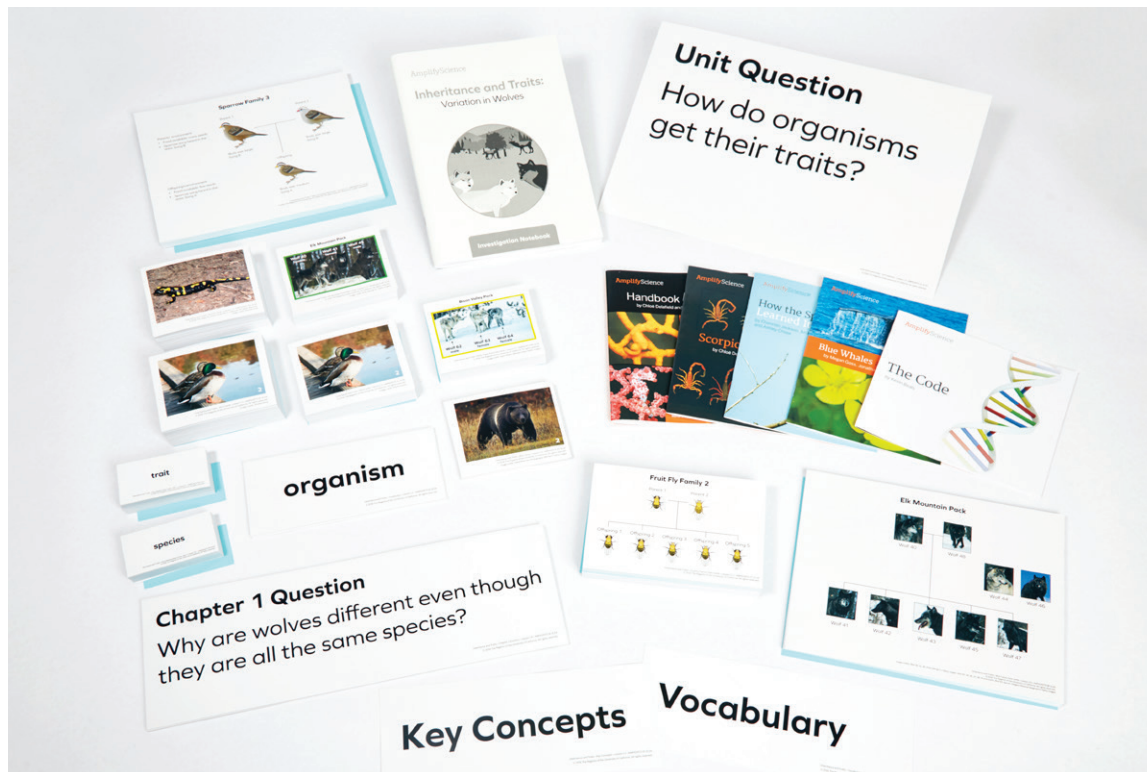
Materials in this unit are packaged in 2 boxes.

Hands-on materials

| Quantity | Description |
|----------|-----------------------------|
| 18 | food coloring, red, bottles |
| 324 | stickers, round, blue |
| 30 | cups, plastic 16 oz. |
| 324 | stickers, round, red |
| 18 | food coloring sets |
| 48 | clay, yellow |
| 48 | clay, green |
| 48 | clay, red |

Classroom materials

| Quantity | Description |
|----------|---|
| 9 sets | Word Relationships cards: set 2 (6 cards/set) |
| 9 sets | Word Relationships cards: set 3 (4 cards/set) |
| 9 sets | Word Relationship cards: set 1 (4 cards/set) |
| 9 sets | Elk Mountain Pack Data cards (6 cards/set) |
| 9 sets | Bison Valley Pack Data cards (6 cards/set) |
| 9 sets | Fruit Fly Family Data cards (4 cards/set) |
| 9 sets | Flamingo Family Data cards (4 cards/set) |
| 9 sets | Sparrow Family Data cards (3 cards/set) |



Student materials

| | |
|---------|---|
| 9 sets | Wolf Family Data cards (2 cards/set) |
| 9 sets | Animal cards (10 cards/set) |
| 1 set | Bear cards (20 cards/set) |
| 18 sets | Bird cards (8 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (14 cards/set) |
| 1 set | Key Concepts (10 cards/set) |
| 1 | Unit Question card |

| Quantity | Description |
|----------|--|
| 1 | <i>Inheritance and Traits: Variation in Wolves Investigation Notebook</i> (104 pages/book) |
| 18 | <i>How the Sparrow Learned Its Song</i> (24 pages/book) |
| 18 | <i>Blue Whales and Buttercups</i> (28 pages/book) |
| 18 | <i>Scorpion Scientist</i> (28 pages/book) |
| 18 | <i>Handbook of Traits</i> (52 pages/book) |
| 18 | <i>The Code</i> (24 pages/book) |

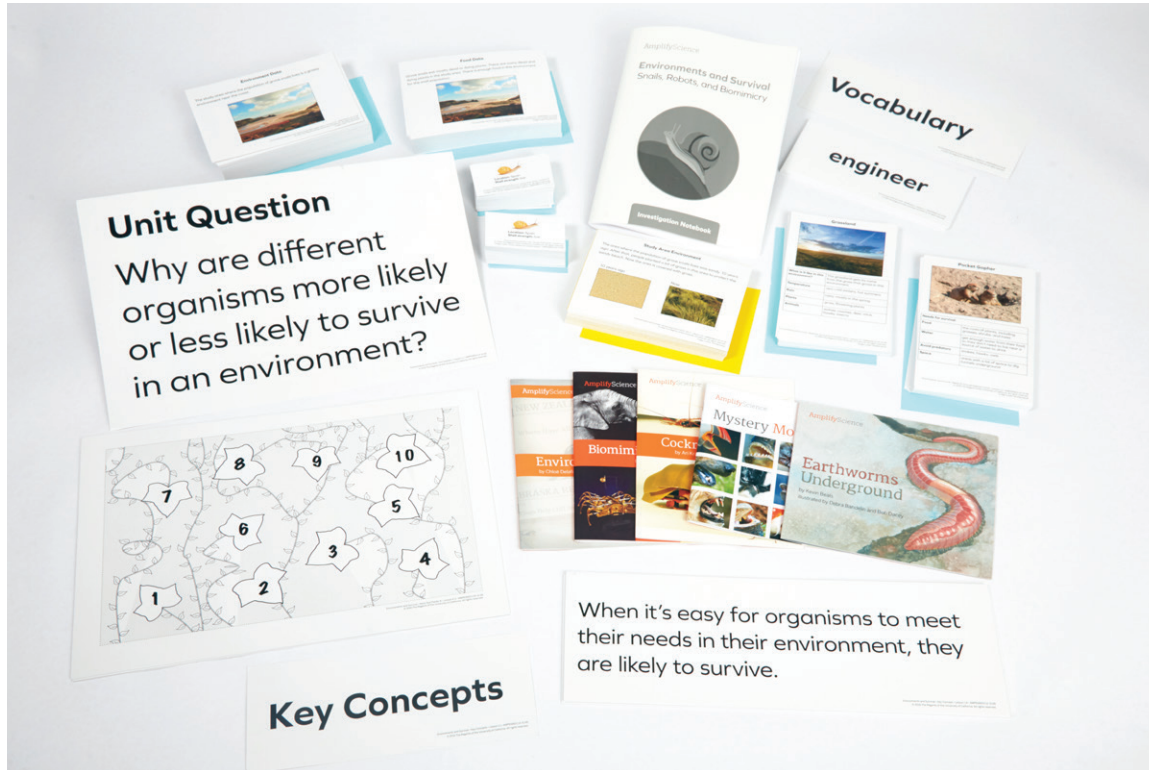
Environments and Survival



Materials in this unit are packaged in **3** boxes.

Hands-on materials

| Quantity | Description |
|----------|----------------------------|
| 1 | tape, packing, clear, roll |
| 800 | straws, plastic, unwrapped |
| 36 | baggies, plastic with zip |
| 36 | cardstock, black, sheets |
| 36 | cardstock, white, sheets |
| 36 | cylinders, graduated |
| 36 | cups, plastic, 9 oz |
| 36 | masking tape, rolls |
| 1224 | wooden craft sticks |
| 18 | model pieces, blue |
| 5 | clay, blocks, 1 lb |
| 18 | probability cubes |
| 36 | droppers, plastic |
| 18 | model pieces, red |
| 3 | string, rolls |
| 540 | tokens, black |
| 360 | tokens, white |
| 576 | pipe cleaners |
| 432 | sticks, skill |



Classroom materials

| Quantity | Description |
|----------|---|
| 9 sets | Needs for Survival Environment cards (4 cards/set) |
| 9 sets | Needs for Survival Organism cards (4 cards/set) |
| 18 sets | Grove Snail Data cards: set 1 (4 cards/set) |
| 18 sets | Grove Snail Data cards: set 2 (6 cards/set) |
| 18 sets | Grove Snail Data cards: set (3 cards/set) |
| 2 sets | Neck Test posters (6 sheets/set) |
| 18 sets | Grove Snail cards (9 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (19 cards/set) |
| 1 set | Key Concepts (9 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Environments and Survival: Snails, Robots, and Biomimicry Investigation Notebook</i> (88 pages/book) |
| 18 | <i>Earthworms Underground</i> (28 pages/book) |
| 18 | <i>Biomimicry Handbook</i> (44 pages/book) |
| 18 | <i>Environment News</i> (24 pages/book) |
| 18 | <i>Cockroach Robots</i> (24 pages/book) |
| 18 | <i>Mystery Mouths</i> (28 pages/book) |

Weather and Climate

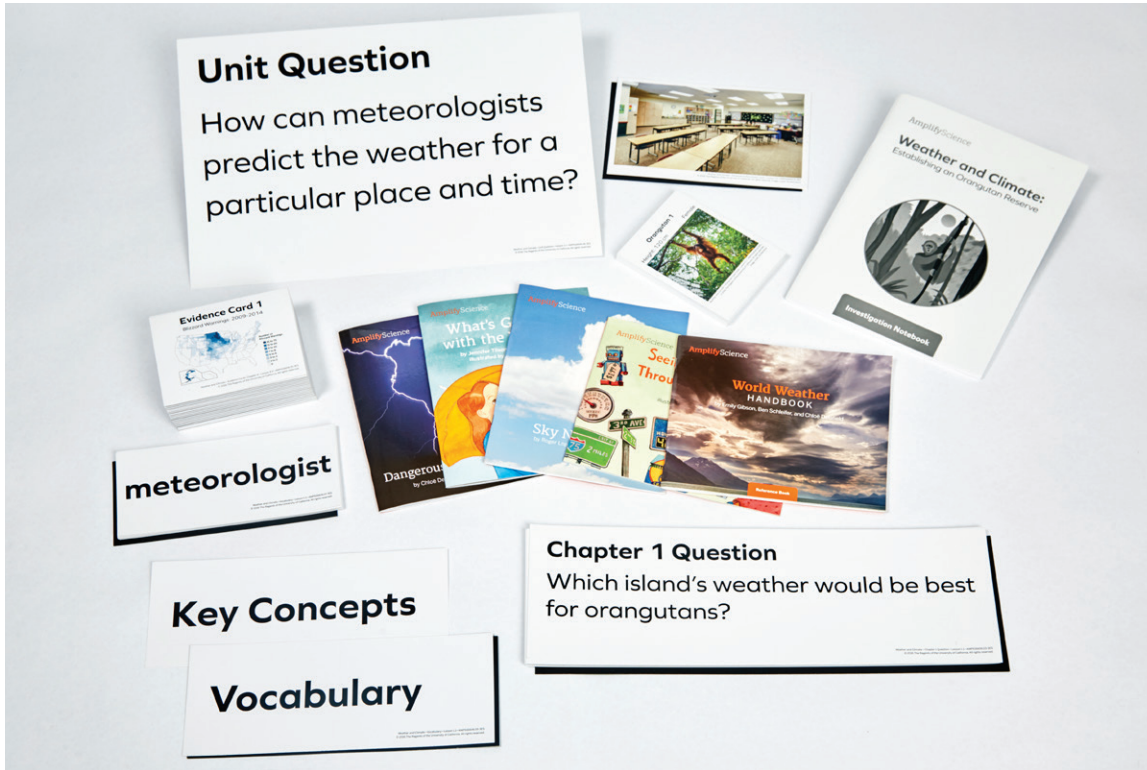


Materials in this unit are packaged in 2 boxes.

Hands-on materials

| Quantity | Description |
|----------|--|
| 1 | thermometer, indoor/outdoor, jumbo, wall mount |
| 9 | containers, plastic, clear, rectangular |
| 150 | sticky notes, yellow, 3" x 3" |
| 90 | cubes, plastic, interlocking |
| 36 | sticky notes, green, 3" x 3" |
| 36 | index cards, blank, 4" x 6" |
| 500 | sticky notes, pink, 3" x 3" |
| 288 | straws, plastic, unwrapped |
| 50 | baggies, plastic with zip |
| 720 | tokens, plastic, yellow |

| | |
|-----|-----------------------|
| 9 | cups, plastic, 1/2 oz |
| 9 | cups, plastic, 16 oz |
| 320 | wooden craft sticks |
| 72 | cups, plastic, 9 oz |
| 27 | thermometers, small |
| 1 | rain gauge |
| 2 | screws |



Classroom materials

| Quantity | Description |
|----------|---|
| 18 sets | Evidence cards: Chapter 4 (7 cards/set) |
| 1 set | Temperature chart cards (4 cards/set) |
| 1 set | Orangutan Data cards (36 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (17 cards/set) |
| 1 set | Key Concepts (9 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|--|
| 1 | <i>Weather and Climate: Establishing an Orangutan Reserve Investigation Notebook</i> (84 pages/book) |
| 18 | <i>What's Going On with the Weather?</i> (24 pages/book) |
| 18 | <i>Seeing the World Through Numbers</i> (28 pages/book) |
| 18 | <i>Dangerous Weather Ahead</i> (28 pages/book) |
| 18 | <i>World Weather Handbook</i> (52 pages/book) |
| 18 | <i>Sky Notebook</i> (28 pages/book) |

Energy Conversions

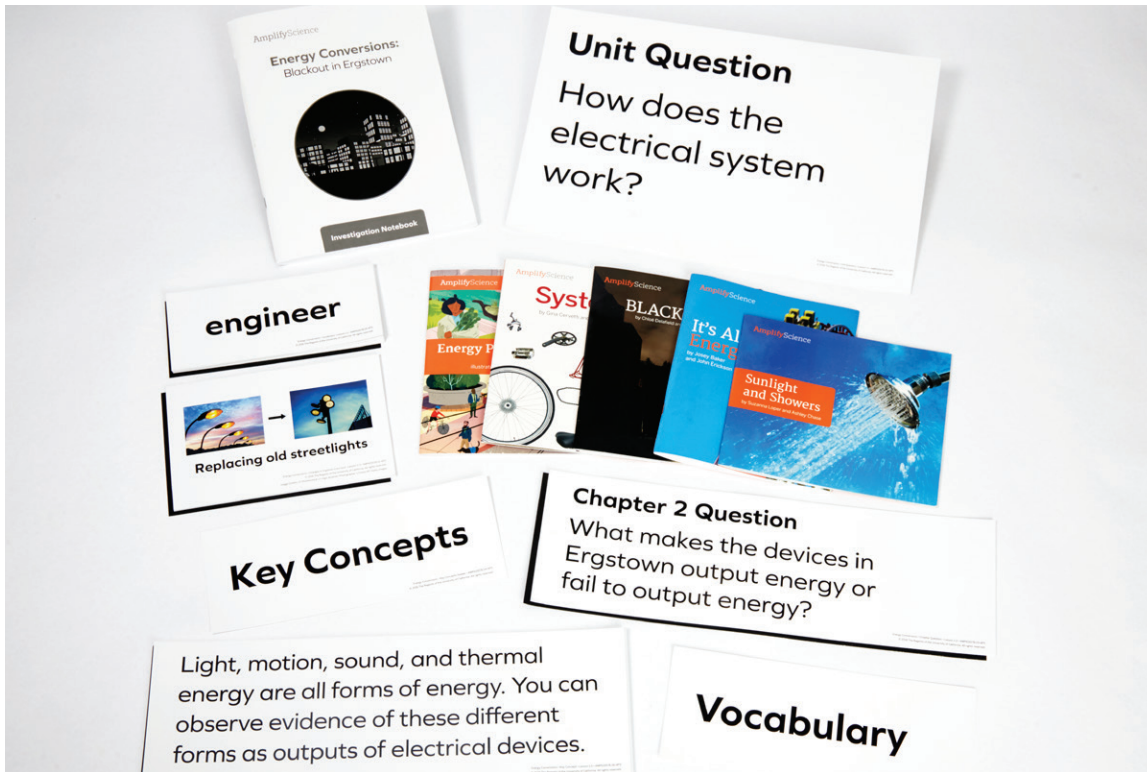


Materials in this unit are packaged in **1** box.

Hands-on materials

| Quantity | Description |
|----------|-----------------------------------|
| 1 | light bulb, incandescent, 60 watt |
| 18 | fan blades, plastic, small |
| 15 | baggies, plastic with zip |
| 18 | wires, with clip leads |
| 125 | plates, paper, small |
| 400 | wooden craft sticks |
| 1 | wire, two-conductor |
| 100 | cups, plastic, 2 oz |
| 1 | cherry pitter |

| | |
|----|---------------|
| 9 | LEDs, bicolor |
| 9 | solar panels |
| 1 | wire cutter |
| 1 | clamp lamp |
| 9 | buzzers |
| 18 | motors |

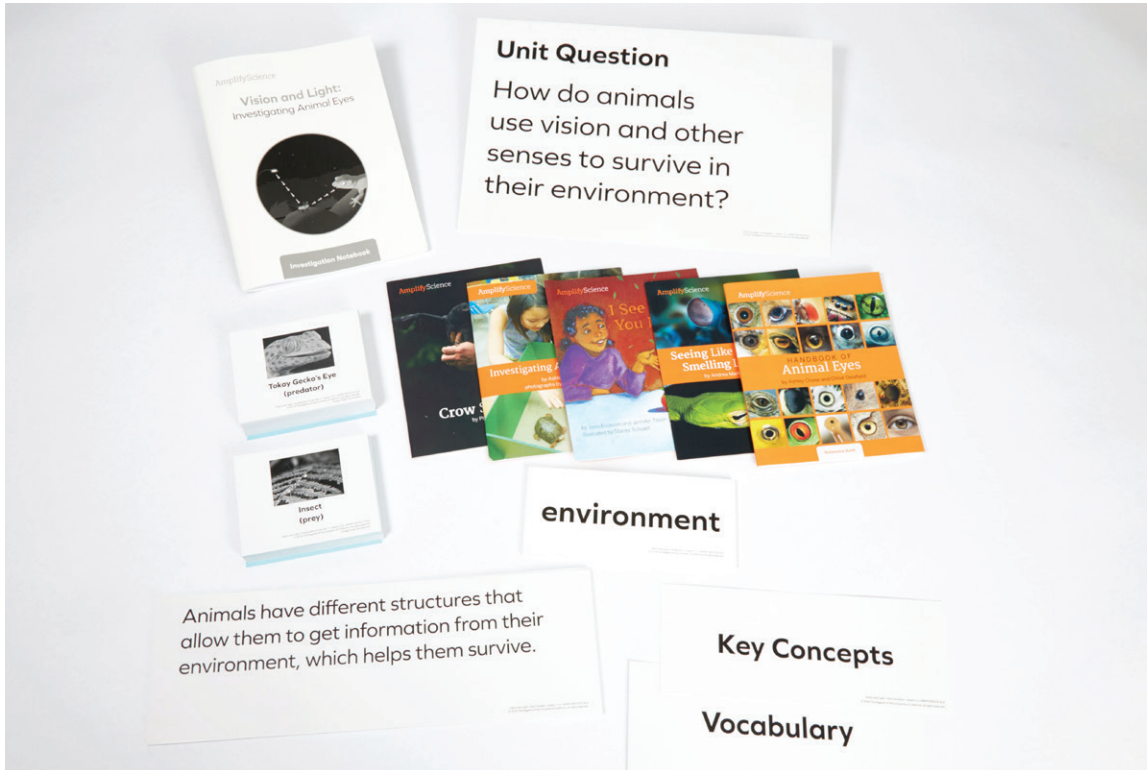


Classroom materials

| Quantity | Description |
|----------|---|
| 1 set | Changes in Ergstown card (400 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (18 cards/set) |
| 1 set | Key Concepts (9 cards/set) |
| 1 set | Unit Question |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Energy Conversions: Blackout in Ergstown</i> Investigation Notebook (100 pages/book) |
| 18 | <i>Energy Past and Present</i> (24 pages/book) |
| 18 | <i>Sunlight and Showers</i> (24 pages/book) |
| 18 | <i>It's All Energy</i> (52 pages/book) |
| 18 | <i>Blackout!</i> (24 pages/book) |
| 18 | <i>Systems</i> (28 pages/book) |



Classroom materials

| Quantity | Description |
|----------|---|
| 18 sets | Explanation cards: set 1 (3 cards/set) |
| 18 sets | Explanation cards: set 2 (5 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (5 cards/set) |
| 1 set | Vocabulary cards (19 cards/set) |
| 1 set | Key Concepts (10 cards/set) |
| 1 set | Unit Question |

Student materials

| Quantity | Description |
|----------|--|
| 1 | <i>Vision and Light: Investigating Animal Eyes Investigation Notebook</i> (108 pages/book) |
| 18 | <i>Seeing Like a Shrimp and Smelling Like a Snake</i> (28 pages/book) |
| 18 | <i>Investigating Animal Senses</i> (28 pages/book) |
| 18 | <i>Handbook of Animal Eyes</i> (52 pages/book) |
| 18 | <i>I See What You Mean</i> (28 pages/book) |
| 18 | <i>Crow Scientist</i> (20 pages/book) |

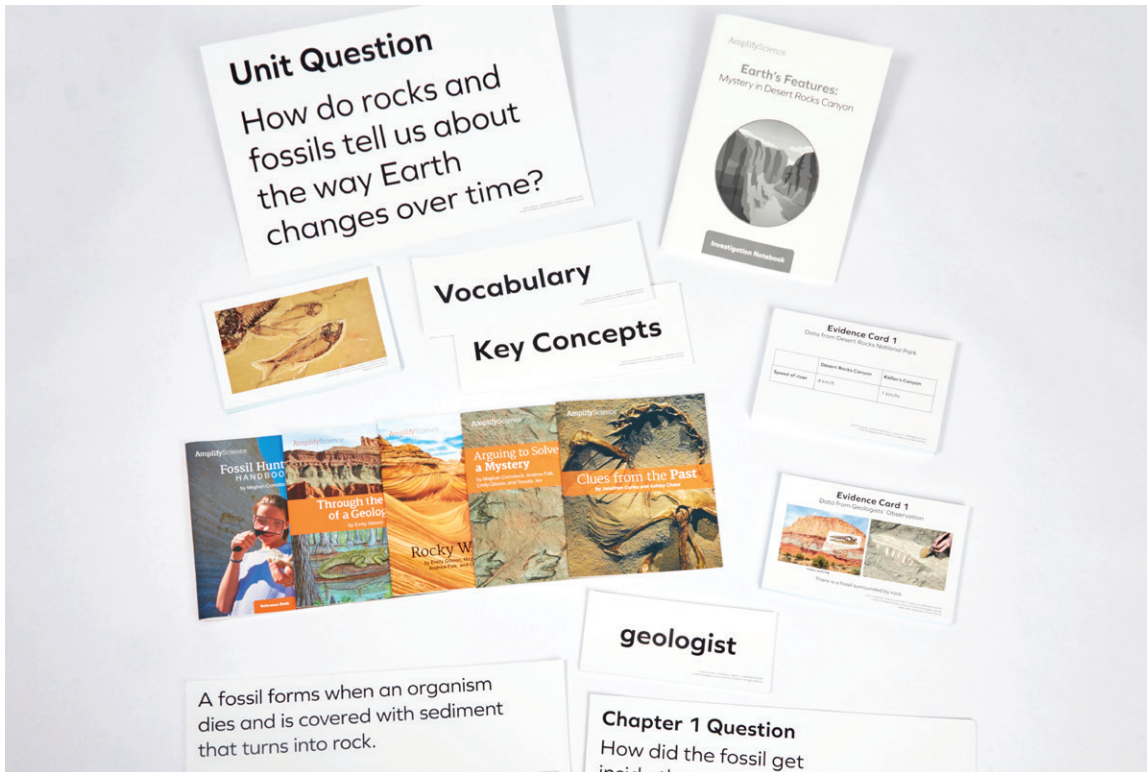
Earth's Features



Materials in this unit are packaged in 3 boxes.

Hands-on materials

| Quantity | Description |
|----------|--|
| 2 | plaster of Paris, powdered dry mix, 1.5 lb canisters |
| 1 | Stream Table Erosion kit |
| 1 | clay, non-drying, 16oz |
| 24 | cups, plastic, 16 oz |
| 54 | cups, plastic, 3 oz |
| 18 | conglomerate rocks |
| 2 | tray, stream table |
| 6 | sand, 2.5 kg bags |
| 9 | sandstone rocks |
| 18 | plastic spoons |
| 12.5 | gravel, cups |
| 4 | buckets |
| 2 | tubes |



Classroom materials

| Quantity | Description |
|----------|---|
| 9 sets | Evidence cards set 1 (3 cards/set) |
| 9 sets | Evidence cards set 2 (4 cards/set) |
| 9 sets | Evidence cards set 3 (5 cards/set) |
| 9 sets | Fossil cards (2 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (16 cards/set) |
| 1 set | Key Concepts (11 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|--|
| 1 | <i>Earth's Features: Mystery in Desert Rocks Canyon Investigation Notebook</i> (92 pages/book) |
| 18 | <i>Through the Eyes of a Geologist</i> (28 pages/book) |
| 18 | <i>Arguing to Solve a Mystery</i> (24 pages/book) |
| 18 | <i>Fossil Hunter's Handbook</i> (56 pages/book) |
| 18 | <i>Clues from the Past</i> (20 pages/book) |
| 18 | <i>Rocky Wonders</i> (28 pages/book) |

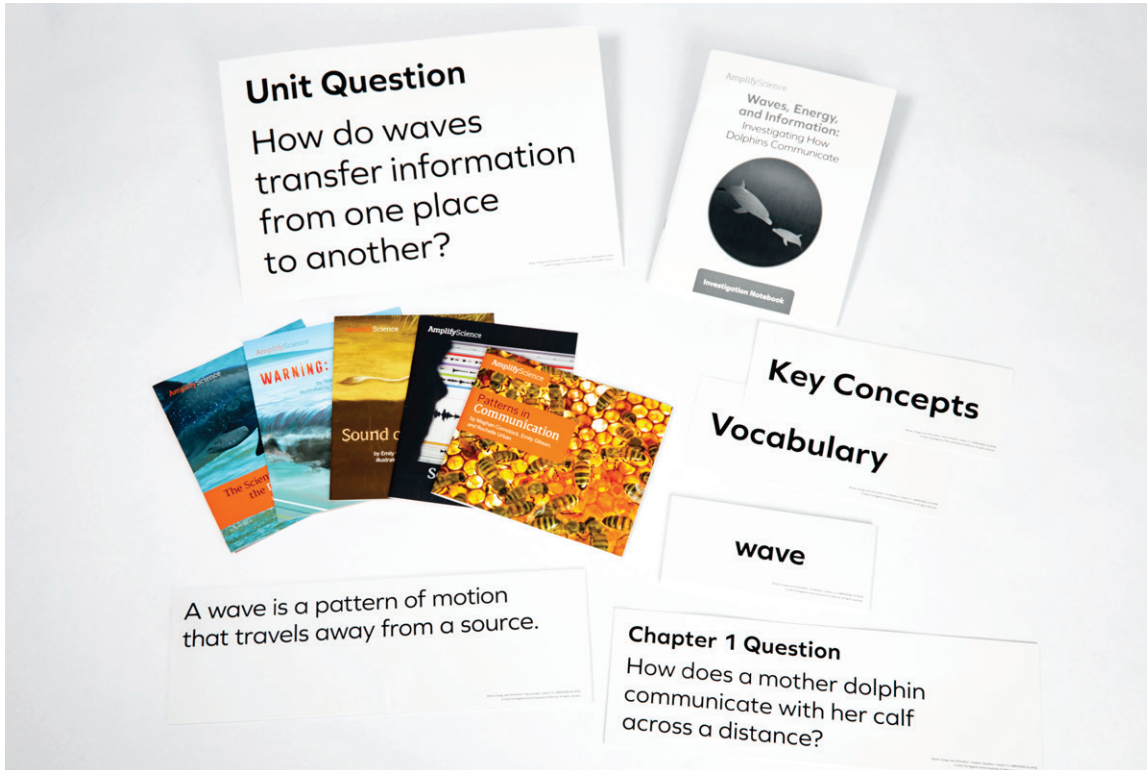
Waves, Energy, and Information



Materials in this unit are packaged in **1** box.

Hands-on materials

| Quantity | Description |
|----------|--------------------------|
| 80 | straws, plastic, wrapped |
| 1 | rope, 72 feet |
| 9 | Slinkys |



Classroom materials

| Quantity | Description |
|----------|---|
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (17 cards/set) |
| 1 | Unit Question card |
| 1 set | Key Concepts |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Waves, Energy, and Information: Investigating How Dolphins Communicate</i> Investigation Notebook (108 pages/book) |
| 18 | <i>The Scientist Who Cracked the Dolphin Code</i> (28 pages/book) |
| 18 | <i>Patterns in Communication</i> (48 pages/book) |
| 18 | <i>Sound on the Move</i> (28 pages/book) |
| 18 | <i>Warning: Tsunami!</i> (24 pages/book) |
| 18 | <i>Seeing Sound</i> (28 pages/book) |

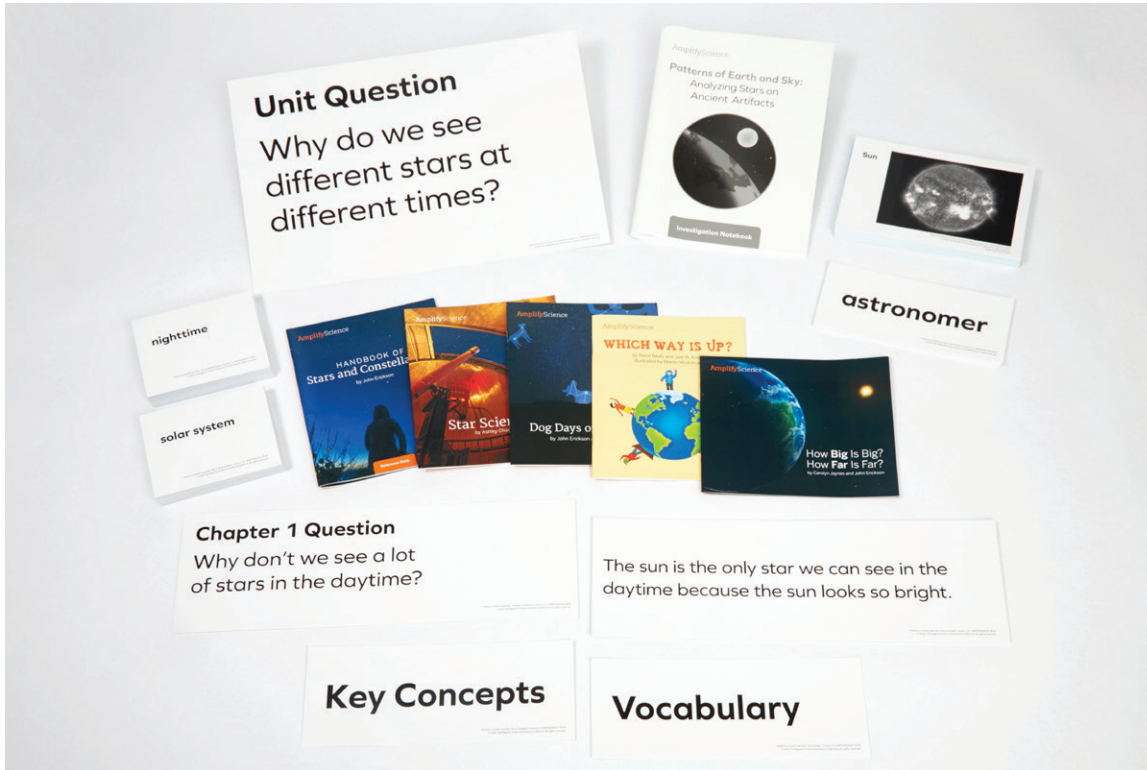
Patterns of Earth and Sky



Materials in this unit are packaged in **1** box.

Hands-on materials

| Quantity | Description |
|----------|----------------------------------|
| 24 | paper, white, sheets (11" x 17") |
| 1 | ball, 15 cm diameter |
| 18 | dots, sticky, yellow |
| 9 | balls, table tennis |
| 18 | dots, sticky, green |
| 9 | globes, inflatable |
| 18 | dots, sticky, blue |
| 18 | dots, sticky, red |
| 1 | map, world |

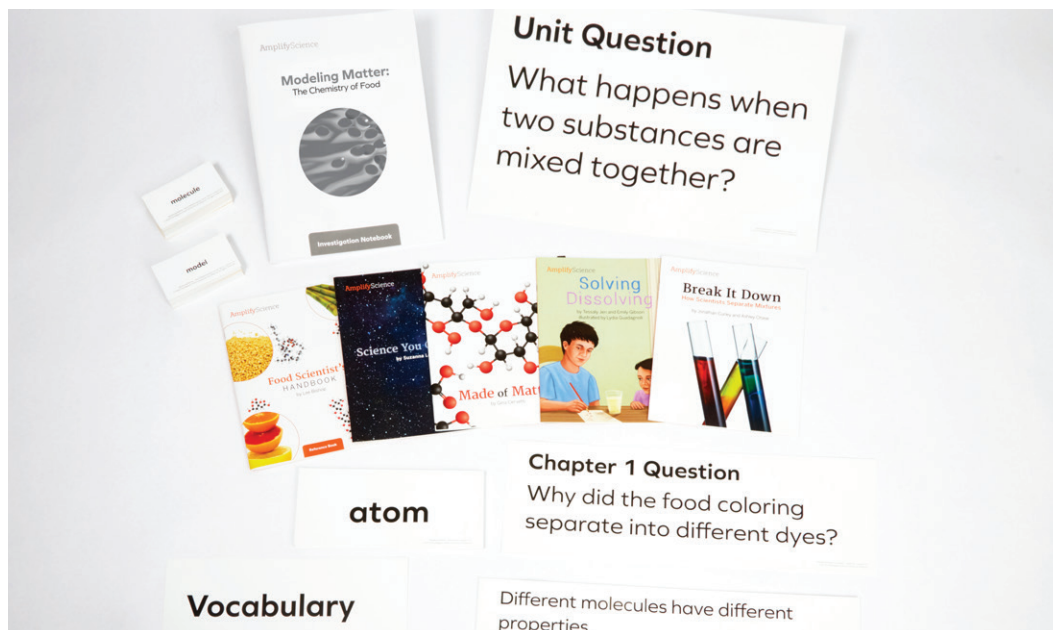


Classroom materials

| Quantity | Description |
|----------|---|
| 9 sets | Word Relationship cards: set 1 (7 cards/set) |
| 9 sets | Word Relationship cards: set 2 (7 cards/set) |
| 18 sets | Explanation cards set (2 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (4 cards/set) |
| 1 set | Vocabulary cards (16 cards/set) |
| 1 set | Key Concepts (10 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|---|
| 1 | <i>Patterns of Earth and Sky: Analyzing Stars on Ancient Artifacts</i> Investigation Notebook (88 pages/book) |
| 18 | <i>Handbook of Stars and Constellations</i> (52 pages/book) |
| 18 | <i>How Big Is Big? How Far Is Far?</i> (28 pages/book) |
| 18 | <i>Dog Days of Summer</i> (20 pages/book) |
| 18 | <i>Which Way Is Up?</i> (28 pages/book) |
| 18 | <i>Star Scientist</i> (20 pages/book) |



| | |
|----|------------------|
| 2 | cornstarch, cups |
| 30 | spoons, plastic |
| 21 | droppers, glass |
| 12 | balls, foam |
| 1 | felt, piece |
| 1 | funnel |

Classroom materials

| Quantity | Description |
|----------|---|
| 9 sets | Word Relationships cards: set 1 (8 cards/set) |
| 9 sets | Word Relationships cards: set 2 (8 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (3 cards/set) |
| 1 set | Vocabulary cards (14 cards/set) |
| 1 set | Key Concepts (11 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|--|
| 1 | <i>Modeling Matter: The Chemistry of Food Investigation Notebook</i> (96 pages/book) |
| 18 | <i>Break It Down: How Scientists Separate Mixtures</i> (28 pages/book) |
| 18 | <i>Food Scientist's Handbook</i> (52 pages/book) |
| 18 | <i>Science You Can't See</i> (28 pages/book) |
| 18 | <i>Solving Dissolving</i> (24 pages/book) |
| 18 | <i>Made of Matter</i> (28 pages/book) |

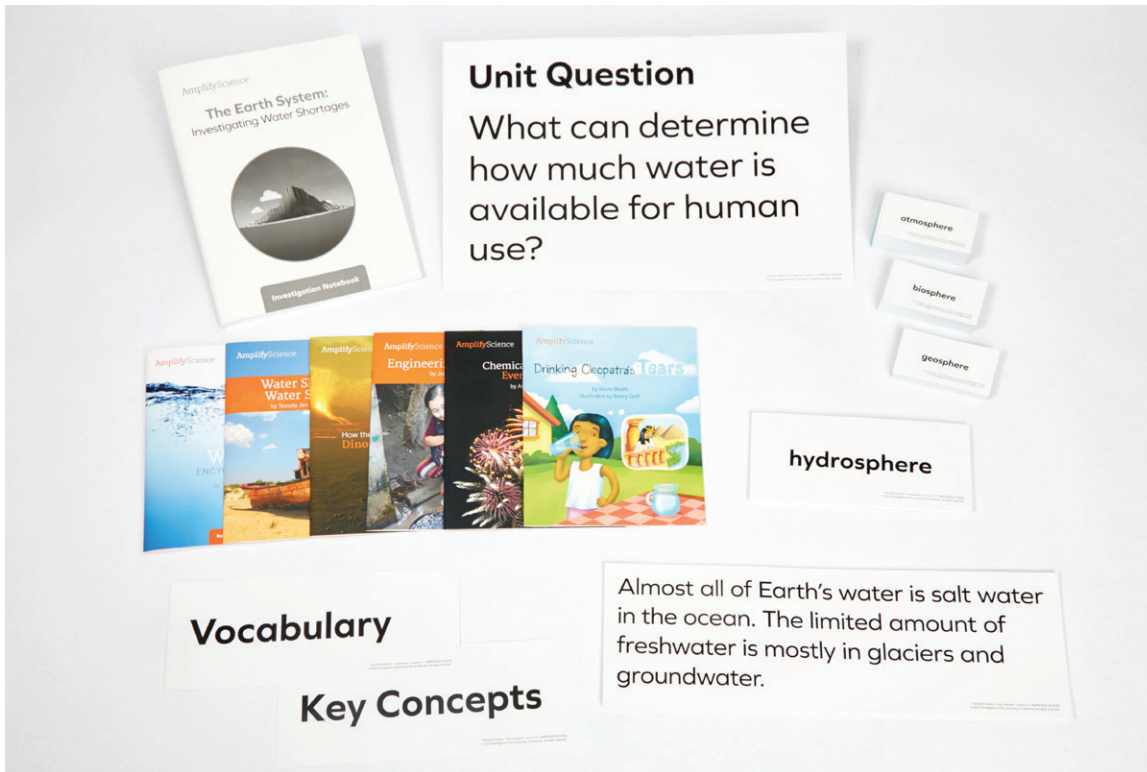
The Earth System



Materials in this unit are packaged in 2 boxes.

Hands-on materials

| Quantity | Description |
|----------|----------------------------------|
| 20 | lids, plastic for 16oz container |
| 1 | phenol red concentrate, bottle |
| 18 | labels: "phenol red + water" |
| 18 | graduated cylinders, 25 ml |
| 18 | labels: "calcium chloride" |
| 218 | baggies, plastic with zip |
| 2 | calcium chloride, bottles |
| 20 | plastic containers, 16 oz |
| 72 | tissue paper, 4"x4" squares |
| 18 | labels: "baking soda" |
| 30 | lids, plastic for cup |
| 20 | cups, plastic, 16 oz |
| 2 | aluminum foil, rolls |
| 198 | baking soda, bottles |
| 4 | Styrofoam cups, 8 oz |
| 36 | plastic cups, 1/2 oz |
| 92 | cups, plastic, 9 oz |
| 2 | plastic wrap, rolls |
| 1 | food coloring set |
| 1 | inflatable globe |
| 18 | measuring spoons |
| 18 | squeeze bottles |
| 9 | labels: "water" |
| 20 | wooden sticks |
| 18 | droppers |



Classroom materials

| Quantity | Description |
|----------|---|
| 9 sets | Word Relationships cards: set 1 (4 cards/set) |
| 9 sets | Word Relationships cards: set 2 (8 cards/set) |
| 9 sets | Word Relationships cards: set 3 (6 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (5 cards/set) |
| 1 set | Vocabulary cards (21 cards/set) |
| 1 set | Key Concepts (14 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|--|
| 1 | <i>The Earth System: Investigating Water Shortages Investigation Notebook</i> (128 pages/book) |
| 18 | <i>How the Earth System Explains Dinosaur Extinction</i> (24 pages/book) |
| 18 | <i>Water Shortages, Water Solutions</i> (24 pages/book) |
| 18 | <i>Chemical Reactions Everywhere</i> (24 pages/book) |
| 18 | <i>Drinking Cleopatra's Tears</i> (28 pages/book) |
| 18 | <i>Engineering Clean Water</i> (20 pages/book) |
| 18 | <i>Water Encyclopedia</i> (52 pages/book) |

Ecosystem Restoration



Materials in this unit are packaged in **3** boxes.

Hands-on materials

| Quantity | Description |
|----------|---------------------------------------|
| 10 | containers, plastic, large, with lids |
| 18 | cubes, plastic, interlocking, green |
| 360 | cubes, plastic, interlocking, white |
| 360 | cubes, plastic, interlocking, blue |
| 27 | cubes, plastic, interlocking, red |
| 2 | soil, nutrient rich, bags |
| 2 | soil, nutrient poor, bags |
| 50 | baggies, plastic with zip |
| 360 | tokens, plastic, yellow |
| 16 | pipe cleaners, green |
| 16 | pipe cleaners, brown |

| | |
|-----|---------------------|
| 18 | wooden craft sticks |
| 125 | cups, plastic, 9 oz |
| 1 | seeds, alfalfa, cup |
| 1.5 | seeds, grass, cup |
| 18 | spoons, plastic |
| 2 | bottles, spray |
| 1 | yarn, ball |
| 6 | balloons |



Classroom materials

| Quantity | Description |
|----------|---|
| 9 sets | Leaves and Roots game cards (28 cards/set) |
| 1 set | Organism Name cards: set 1 (36 cards/set) |
| 1 set | Organism Name cards: set 2 (36 cards/set) |
| 9 sets | Evidence cards: Decomposers (6 cards/set) |
| 18 sets | Leaves and Roots game board (1 card/set) |
| 9 sets | Evidence cards: Animals (5 cards/set) |
| 9 sets | Evidence cards: Plants (5 cards/set) |
| 1 set | section headers: Key Concepts, Vocabulary (2 cards/set) |
| 1 set | Chapter Questions (3 cards/set) |
| 1 set | Vocabulary cards (19 cards/set) |
| 1 set | Key Concepts (13 cards/set) |
| 1 | Unit Question card |

Student materials

| Quantity | Description |
|----------|--|
| 1 | <i>Ecosystem Restoration: Matter and Energy in a Rainforest Investigation Notebook</i> (92 pages/book) |
| 18 | <i>Restoration Case Studies</i> (56 pages/book) |
| 18 | <i>Why Do Scientists Argue?</i> (24 pages/book) |
| 18 | <i>Matter Makes It All Up</i> (24 pages/book) |
| 18 | <i>Energy Makes It All Go</i> (28 pages/book) |
| 18 | <i>Walk in the Woods</i> (24 pages/book) |

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THE LAWRENCE
HALL OF SCIENCE
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